

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A communication device for communicating with a computing element, the computing element executing a closed-loop algorithm for controlling a delivery rate of an infusion formulation by an infusion pump in response to a sensed biological state, the communication device comprising:
 - an outer housing;
 - a power source;
 - a plurality of user-selectable operators attached to the housing, ~~each~~ at least one of the plurality of user-selectable operators representing at least one exercise event of a user that affects the sensed biological state and the at least one user-selectable operator being selectable for initiating communication of signals to the computing element, the signals representing ~~events affecting the sensed biological state~~ at least one exercise event; and
 - a transmission device for transmitting the signals to the computing element;wherein the closed-loop algorithm processes the signals received by the computing element and adjusts the delivery rate of an infusion formulation in accordance with pre-programmed information relating to the ~~events~~ at least one exercise event represented by the signals.
2. (Original) The communication device recited in claim 1, wherein the infusion formulation comprises an insulin formulation.
3. (Original) The communication device recited in claim 1, wherein the sensed biological state comprises a sensed glucose level.
4. (Cancelled)
5. (Original) The communication device recited in claim 1, wherein the transmission device is a radio frequency transmitter.

6. (Original) The communication device recited in claim 1, further comprising a plurality of user-selectable operators attached to the housing, each of the plurality of user-selectable operators being selectable for communicating signals to the computing element, the signals representing event rankings associated with respective ones of the events, the event rankings affecting the sensed biological state.

7. (Original) The communication device recited in claim 6, wherein the event rankings comprise at least one of a degree, quantity, and measure of the respective ones of the events.

8. (Amended) The communication device recited in claim 6, wherein the event rankings comprise at least one of a set of rankings comprising relative values of: "light," "moderate," and "heavy," or comprising relative values of "short," and "long," or comprising relative values of "low," and "high."

9. (Original) The communication device recited in claim 1, wherein the infusion pump is an implantable infusion pump.

10. (Previously Amended) The communication device recited in claim 1, further comprising:
a display for displaying events and event rankings affecting the sensed biological state.

11. (Original) The communication device recited in claim 10, wherein the infusion formulation comprises an insulin formulation.

12. (Original) The communication device recited in claim 10, wherein the sensed biological state comprises a sensed glucose level.

13. (Canceled)

14. (Amended) The communication device recited in claim 10, wherein the event rankings comprise at least one of a set of rankings comprising relative values of: "light," "moderate," and "heavy," or comprising relative values of "short," and "long," or comprising relative values of "low," and "high."

15.-41. (Canceled)

42. (New) A device as recited in claim 1, wherein the closed loop algorithm:
detects a change in the sensed biological state;
determines an amount of infusion media for responding to the detected change;
determines whether the determined amount of infusion media is within a predefined limit;
determine whether the user-initiated signal is present; and
adjust the delivery rate in accordance with user-initiated signal if the determined amount of infusion media is not within the predefined limit and if the user-initiated signal is present.

43. (New) A device as recited in claim 1, wherein the closed loop algorithm:
determines if an amount of infusion media for responding to a change in the sensed biological state is within a predefined limit; and
adjusts the delivery rate in accordance with user-initiated signal if the determined amount of infusion media is not within the predefined limit.

44. (New) A device as recited in claim 1, wherein the at least one user-selectable operator comprises an operator for entering an event ranking comprising at least one of a degree, quantity or measure associated with an exercise event of the user.

45. (New) A device as recited in claim 1, wherein the at least one user-selectable operator comprises an operator for entering an exercise event ranking from a selection of rankings comprising light, moderate and heavy relative amounts of exercise.

46. (New) A communication device for communicating with a computing element, the computing element executing a closed-loop algorithm for controlling a delivery of a medical treatment to a user in response to a sensed biological state of the user, the communication device comprising:

a plurality of user-selectable operators, at least one of the user-selectable operators for representing at least one sleep event, medication event or stress event of the user that affects the sensed biological state and each of the plurality of user-selectable operators being selectable for initiating communication of signals to the computing element, the signals representing events affecting the at least one sleep, medication or stress event; and

a transmission device for transmitting the signals to the computing element;

wherein the closed-loop algorithm processes the signals received by the computing element and adjusts the delivery of the medical treatment in accordance with pre-programmed information relating to the at least one sleep, medication or stress event represented by the signals.

47. (New) A device as recited in claim 46, wherein the closed loop algorithm:
detects a change in the sensed biological state;
determines an amount of a medical treatment for responding to the detected change;
determines whether the determined amount of medical treatment is within at least one predefined limit;

determine whether user-initiated signal is present if the determined amount of medical treatment is not within the at least one predefined limit; and

adjust the amount of medical treatment in accordance with user-initiated signal if the determined amount of medical treatment is not within the predefined limit and if the user-initiated signal is present.

48. (New) A device as recited in claim 47, wherein the at least one predefined limit comprises a maximum amount of medical treatment.

49. (New) A device as recited in claim 47, wherein the at least one predefined limit comprises a minimum amount of medical treatment.

50. (New) A device as recited in claim 47, wherein the at least one predefined limit comprises a minimum amount of medical treatment and a maximum amount of medical treatment.

51. (New) A device as recited in claim 46, wherein the delivery of a medical treatment comprises delivering an insuline formulation to the user at a rate determined by the closed-loop algorithm.

52. (New) A device as recited in claim 46, wherein the delivery of a medical treatment comprises delivering an infusion medium to the user.

53. (New) A device as recited in claim 52, wherein the closed loop algorithm:
detects a change in the sensed biological state;
determines a delivery rate of infusion media for responding to the detected change;
determines whether the determined rate of infusion media is within at least one predefined limit;
determine whether user-initiated signal is present if the determined amount of infusion media is not within the at least one predefined limit; and
adjust the delivery rate in accordance with user-initiated signal if the determined amount of infusion media is not within the predefined limit and if the user-initiated signal is present.

54. (New) A device as recited in claim 53, wherein the at least one predefined limit comprises a maximum delivery rate.

55. (New) A device as recited in claim 53, wherein the at least one predefined limit comprises a minimum delivery rate.

56. (New) A device as recited in claim 53, wherein the at least one predefined limit comprises a minimum delivery rate and a maximum delivery rate.

57. (New) A device as recited in claim 53, wherein the closed loop algorithm:
determines if an amount of infusion media for responding to a change in the sensed
biological state is within at least one predefined limit; and
adjusts the delivery rate in accordance with user-initiated signal if the determined amount
of infusion media is not within the predefined limit.

58. (New) A device as recited in claim 57, wherein the at least one predefined limit
comprises a maximum delivery rate.

59. (New) A device as recited in claim 57, wherein the at least one predefined limit
comprises a minimum delivery rate.

60. (New) A device as recited in claim 57 wherein the at least one predefined limit
comprises a minimum delivery rate and a maximum delivery rate.

61. (New) A device as recited in claim 46, wherein the at least one user-selectable
operator comprises an operator for entering an event ranking comprising at least one of a degree,
quantity or measure associated with a sleep event of the user.

62. (New) A device as recited in claim 46, wherein the at least one user-selectable
operator comprises an operator for entering a sleep event ranking from a selection of rankings
comprising light, moderate and heavy relative amounts of sleep.

63. (New) A device as recited in claim 46, wherein the at least one user-selectable
operator comprises an operator for entering a sleep event ranking comprising at least one of a
degree, quantity or measure associated with a stress event of the user.

64. (New) A device as recited in claim 46, wherein the at least one user-selectable
operator comprises an operator for entering a stress event ranking from a selection of rankings
comprising light, moderate and heavy relative amounts of stress.

65. (New) A device as recited in claim 46, wherein the at least one user-selectable
operator comprises an operator for entering an event ranking comprising at least one of a degree,
quantity or measure associated with a medication event of the user.

66. (New) A device as recited in claim 46, wherein the at least one user-selectable operator comprises an operator for entering a medication event ranking from a selection of rankings comprising light, moderate and heavy relative amounts of medication.

67. (New) A device as recited in claim 46, wherein the at least one sleep event, medication event or stress event of the user comprises at least one sleep event.

68. (New) A device as recited in claim 46, wherein the at least one sleep event, medication event or stress event of the user comprises at least one medication event.

69. (New) A device as recited in claim 46, wherein the at least one sleep event, medication event or stress event of the user comprises at least one stress event.